## ESTIMATES—LIGHT-HOUSE SERVICE.

## LETTER

FROM

# THE SECRETARY OF THE TREASURY,

TRANSMITTING

Estimates for the Light-house Service.

JUNE 21, 1856.—Referred to the Committee of Ways and Means.

TREASURY DEPARTMENT,

June 6, 1856.

Sir: I have the honor to transmit a letter from the Light-house Board, of the 4th instant, submitting estimates (herewith enclosed) to meet the wants of the light-house service, arising from casualties which occurred during the past winter, and to recommend that the necessary appropriations may be made therefor.

I am, very respectfully,

JAMES GUTHRIE, Secretary of the Treasury.

Hon. L. D. Campbell, Chairman Committee of Ways and Means H. R.

TREASURY DEPARTMENT,
Office Light-house Board, June 4, 1856.

Sir: I have the honor, by direction of this board, to submit for your consideration the following additional estimates for appropriations to meet the wants of this branch of the public service in restoring lost and damaged beacons, spindles, and buoys, lost moorings, and repairing injuries to light-vessels, and for restoring the bracing and making the necessary repairs to the iron screw-pile light-house on Brandywine shoal, in Delaware bay, which losses and injuries have been sustained by the unusual quantities of heavy masses of floating ice brought in contact with them at the opening of spring, viz:

For restoring the bracing and repairing injuries to the iron screw-pile light-house on Brandywine shoal, by the breaking up of the ice in the Delaware river and bay.....

\$7,352 03

When the estimates were prepared for the ensuing fiscal year, they were based upon the expenditures and experience of past years, without anticipating the necessity for the increased expenditures which is

now made apparent.

It is believed the accompanying reports and detailed estimates, upon which the amounts asked are based, will satisfactorily explain to the department, and to the Committees of Ways and Means and of Finance, the necessity for the appropriations, and they are therefore respectfully recommended to your favorable consideration.

W. B. SHUBRICK, Chairman Light-house Board.

Thornton S. Jenkins,

Secretary.

Hon. James Guthrie,

Secretary of the Treasury.

For restoring the bracing and repairing injuries to the iron screw-pile light-house on Brandywine shoal by the breaking up of the ice in the Delaware river and bar	<b>\$</b> 7,352	03
For restoring and repairing beacons, buoys, and spin-	P1,004	00
dles destroyed or injured by the breaking up of the	. and it	
ice on the coasts of Maine and Massachusetts, in Long Island sound, and in Newark, New York, Delaware		
and Chesapeake bays	41,874	00
For restoring lost moorings and repairing injuries to light-vessels by the breaking up of the ice in Vineyard		
sound, Boston and Chesapeake bays	14,727	54

List of aids to navigation destroyed or damaged by the ice during the winter of 1855-'6 on the coasts of Maine, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey, and in the Delaware and Chesapeake bays and tributaries.

#### MAINE.

Alden's Rock bell-boat, damaged		\$600	00
Buoys for South Breaker, Bantam bay, and Drunken			
Ledge, destroyed	1	,000	00

Spindle on rock near Owl's Head, destroyed	\$600	00
Beacon on Half-tide Ledge at Kennebunkport	1,000	
Beacon on Steel's Ledge in Penobscot bay	3,500	
Sea-coast buoys near Petit Menan light-house	900	
Whale's Back	500	
		_
Total for Maine.	8,100	00
Massachusetts.		
Buoys lost and damaged in the Vineyard sound	1,581	00
In Buzzard's bay	375	
In Boston bay	1,782	00
	0 500	
Total for buoys in Massachusetts	3,738	00
Damage to light-ships in Boston bay, Vineyard sound,	0 500	00
and Buzzard's bay	6,500	00
Total for Massachusetts	10 999	00
Total for Massachusetts	10,238	00
IN NEW YORK BAY AND LONG ISLAND SOUND.		
Romer shoal beacon, damaged	2,000	00
Plumb Gat beacon, destroyed	3,500	
Southwest Ledge beacon	2,000	
Spindles in Long Island sound and Narragansett bay	2,500	
Buoys	2,598	
Damage to light-vessels	1,488	
	-,	
NEWARK BAY, N. J.		
Great West Oyster-bed beacon	4,500	00
Shooter's Island beacon	4,000	
Mill Reef beacon	1,000	
Total for Narragansett bay, Long Island sound, and		
Newark bay	23,586	62
DELAWARE BAY		
D : CD 1 : 1:1:1	H 050	00
Repairs of Brandywine light-house	7,352	
Buoys	4,438	00
Total for Delaware bay	11,790	03
CHESAPEAKE BAY AND TRIBUTARIES.		4
Buoys lost or damaged	3,500	00
Damage to light-vessels	6,738	
Dumage to fight-vessels	0,100	04
Total for Chesapeake bay	10,238	92
	20,200	

## RECAPITULATION.

For buoys, beacons, and spindles	\$41,874	00
For light-vessels	14,727	54
For Brandywine light-house	7,352	03

TREASURY DEPARTMENT, Office Light-house Board, April 18, 1856.

Sir: I have to request that you will report to this office, at your earliest convenience, the damage done to the buoys, beacons, and light-vessels in your district, during the past severe winter, by the large quantities of floating ice, and by the unusual severity of the storms on the coast, over and above the ordinary damage of past years, to these aids to navigation; specifying the number of buoys lost or damaged in the different parts of the different light-vessels that have broken adrift, and the estimated cost of chains, anchors, and repairs, and the different day-beacons which have been injured or destroyed, with the estimated cost of restoring or rebuilding each one of them.

This information is desired, to enable the board to ask Congress for the necessary sums, under the respective heads of appropriation, to meet the wants of the service growing out of these casualties.

Very respectfully, your obedient servant,

THORNTON A. JENKINS,

Secretary.

To the LIGHT-HOUSE INSPECTOR.

PORTLAND, ME., March 26, 1856.

SIR:

I submit herewith the estimate asked for by your circular.

## Estimate.

Estimate.		
For getting back Alden's Rock bell-boat to her station, and for new moorings for her	\$600	00
buoys, at \$200 per buoy	1,000	00
For repairing iron work on Whale's Back light-house	500	00
For spindle on a rock near Owl's Head harbor	600	00
Total	2.700	00

Although the cold weather is nearly over here, I do not think it certain that the danger of destruction of many of the aids to navigation in the upper part of Penobscot bay is past. When the ice leaves the river, it comes down with great force, in large masses; and, as there is a very large quantity of it this year, I think it probable that some of the beacons in Penobscot bay, and many of the buoys, will be carried away.

Very respectfully, your obedient servant,

W. B. FRANKLIN,

Light-house Inspector.

Capt. E. L. F. Hardcastle, Secretary Light-house Board, Washington, D. C.

PORTLAND, ME., May 1, 1856.

SIR: I have received your letter of the 18th ultimo, requesting me to transmit a statement of the various losses and damages to aids to navigation in this district. I received a similar letter, signed by the engineer secretary of the board, dated March 22, 1856; and I answered that letter, giving all the information in my power, by a letter dated March 25, 1856. I respectfully refer you to that letter for the desired information.

Since that letter was written, the wooden beacon on Steel's ledge, in Penobscot bay, has been carried away by the ice. Should another wooden structure be placed there, it will eventually be carried away by the same cause; and I recommend that an iron beacon be placed there, similar to that adopted for Buck's ledge, Penobscot river.

The amount required for such a beacon is \$3,500. Three outside buoys in the vicinity of Petit Menan light-house have been carried away. On account of the great distance from land (eight or ten miles) at which these buoys are placed, they are very expensive; and I recommend that \$900 be appropriated for replacing them.

Very respectfully, your obedient servant,

W. B. FRANKLIN, Light-house Inspector.

Capt. T. A. Jenkins, U. S. N., Secretary Light-house Board, Washington, D. C.

> PORTLAND, MAINE, May 20, 1856.

SIR: I visited Kennebunkport last week to select a site for a light-house there; while there I found that a beacon on Half-Tide ledge had been carried away during the past winter by the ice. I had received no information of it before, and could not, therefore, embody it in my answer to your circular on this subject, dated April 18, 1856.

To replace this beacon by a substantial iron spindle, with a cage or day-mark, the sum of \$1,000 will be required.

Very respectfully, your obedient servant,

W. B. FRANKLIN, Light-House Inspector.

Captain T. A. Jenkins, U. S. N., Secretary Light-House Board, Washington, D. C.

> Office Light-House Inspector, Boston, April 22, 1856.

SIR: Enclosed I send you a list of the buoys and spindles lost or injured during the last winter, together with an estimate of amounts necessary to repair the damages of the light-vessels occasioned by breaking adrift and being cut and bruised by the ice.

Very respectfully, your obedient servant,

C. H. B. CALDWELL, Inspector Second District.

Commander Thornton A. Jenkins, Secretary Light-House Board.

Location and mark.		Prices.				Amount
Totalon and mark	Buoy.	Chain.	Sinker.			
Hedge fence, east end, 3d class nun.  Horse-shoe, shoal spot, 3d class nun.  South part, 2d class can.  Southeast part, 2d class nun.  Stone Horse, 3d class nun.  Puckernuck slue.  east end.  Chatham bars.	\$70 00 70 00 80 00 125 00 70 00 70 00 70 00 70 00	\$50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00	\$7 00 7 00 7 00 7 00 7 00 7 00 7 00 7 00	\$1,081 0		
Vineyard sound, 20 spar-buoys, at \$20. 20 sinkers for ditto, at \$5	400 00 100 00			500 0		
Buzzard's bay, 15 spar-buoys, at \$20	300 00 75 00			375 0		
3 Soston bay, 20 spar-buoys, at \$20. 20 sinkers for ditto, at \$5	400 00 100 00			500 0		
Repairs, &c Shovelful light-vessel. Pollock ripdo Succonnesset.do. Sow and Pigs.dochain and mushroon, and repairs. Cross ripdo. Minot's ledge.dochain and mushroon, and repairs. Harding's Ledge bell-boatdodo. Harding's Ledge bell-boatdodo south enddo middle buoy, 2d class nun. Barrel Rock, 2d class can. Point Alderton buoy, 2d class nun. Little Fawn bar, 2d class can. Centurion, south end, stove. Little Aqua Vita, spindle. Hardy's Rock, spindle. Edgartown harbor, spindle.	125 00 125 00 80 00 80 00		7 00 7 00 7 00 7 00 7 00 7 00 7 00 7 00	500 0 500 0 250 0 250 0 2,250 0 2,500 0 500 0		
Total				10,238		

LIGHT-HOUSE OFFICE, THIRD DISTRICT, No. 101 Front Street, New York, May 27, 1856.

SIR: In compliance with your directions of 18th ultimo, I herewith have to submit a report of the damage to light-vessels, beacons, and spindles, and loss of buoys, by the floating ice and storms of the late

severe winter.

The light-vessels at Stratford shoals and Bartlett's reef, Long Island sound, and at Eel Grass shoal, Fisher's Island sound, New York, were driven from their stations with loss of cables and injury to copper. Steamers were sent to tow them to safe harbors. The moorings were recovered, and the vessels repaired and returned to their stations at the earliest date practicable.

	The	expe	ense	was	as	fo.	llows	, VIZ	:	
rrs		Q.	10	7 7	7	1	7	0	-1	7

Towing Stratford light-vessel from the midst of ice to New		
London	\$250	00
Repairs of copper, &c	31	
Wharfage, labor, &c	24	50
Returning her to station	125	00
	430	
Towing Bartlett's Reef light-vessel from midst of ice	\$150	
Raising moorings	100	
Repairs	257	63
Spare anchor and cable	438	41
Spare anchor and cable	50	00
	996	04
		-
Fol Cagoo Chool light accord		

Eel Grass Shoal light-vessel.

Repairs. Towing to station.		\$37 25	07 00	
	-	62	07	

The iron-pile beacons at Oyster-bed, Newark bay, New Jersey, and Oyster Pond Point, Plumb Gut, New York, and the crib-beacon at the Corner stake, Newark bay, New Jersey, were entirely swept away.

The iron-pile beacons at the Romer shoal, and at Kilvankill, New York, and on the southwest ledge off New Haven, Connecticut, have been considerably injured. I estimate for replacing and repairing

them \$20,000.

The iron spindles on the "Whale Rock," Fisher's Island sound, New York, and on the south point of Rose island, Narragansett bay, Rhode Island, have been swept away. Almost all the others have become more or less bent, and many of the day-marks have been shaken from the tops and lost. There is an appropriation of \$2,000 for a beacon on the Whale still unexpended, which I suppose can be ap-

plied to the first. For the second, and repairs of the oth	iers, I es	sti-
mate \$1,500		
Buoys have been lost in the several districts as follows,	viz:	
New York bay and Long Island sound to New		
Haven 17 sp	ars.	
Fire Island inlet 3	6	
Hudson river 6	6	
Sag Harbor district 7	6	
New London district 10 '	6	
	class ca	an.
	66	
Dodo	ars.	
There will be required to replace them as follows, viz:		
54 spar-buoys, averaging 30 feet, with sinkers, &c., com-		
plete, at \$37 each	\$1,998	00
2 second class iron can-buoys	600	
	2,598	00
RECAPITULATION.		
TOMOTHE IT OMITTAGE		
Repairs light-vessels	\$1,488	62
Repairs beacons	20,000	00

Very respectfully, your obedient servant,

Repairs spindles..

Repairs buoys...

A. LUDLOW CASE,

Light-house Inspector 3d District.

1,500 00

2,598 00

25,586 62

Com. T. A. Jenkins, U. S. N., Secretary Light-house Board, Washington.

> Office of the U. S. Engineer Agency, No. 5 Bowling Green, New York, May 5, 1856.

SIR: In compliance with the request contained in letter from the Light-house Board of the 22d March last, I submit herewith an estimate of the repairs and renovations of beacons required in this part of the third district, in consequence of the damages caused by floating ice during the past winter.

So far as can be ascertained, all those requiring consideration are contained in Newark bay, the Kills, New York harbor, and the waters at the eastern extremity of Long Island. The iron beacon on West Oyster Bed, and the crib-beacon at Shuter's island, Newark bay, have been completely swept away. The iron beacon on Mill reef, opposite New Brighton, on the Kills, and the one on Romer shoal in the lower harbor of New York, have been seriously damaged, and the iron

beacon erected on a rock at Plumb Gut, end of Long Island, has been swept away. The crib-piers of the Passaic and Bergen Point lighthouses have also been much injured, but appropriations for rebuilding both these appear to be now before Congress.

For all which the following is estimated:

Ditto on Shuter's island	
Ronging of hascon Roman shoel	,000
the parts of beacon, fromer shoat	,000
Beacon at Plumb Gut 3	,500

Very respectfully, your obedient servant,

GEO. DUTTON, Captain Engineers.

To the Secretary of the Light-house Board, Washington, D. C.

PHILADELPHIA, May 27, 1856.

SIR: In reply to the circular letter of the 19th ultimo, in relation to losses from ice by the late severe winter, I have to report in Delaware bay and river the following losses:

- One first class iron nun-buoy, with its chain (15 fathoms) and (1.)anchor.
- (2.)Two first class iron can-buoys, with their chains (15 fathoms each) and anchors.
- (2.) Two second class iron nun-buoys, with their chains (15 fathoms each) and anchors.
- (3.)First class buoy-anchors.

The above were all furnished from Washington, so that the cost of replacing them can best be ascertained there. I have never had any iron buoys made in this district, except one, which was different from these.

Besides the above, are lost—

- (1.) One spherical buoy, costing......\$150 00 Its chain and anchor.....
- (7.) Spar-buoys, which will cost, with their anchors. \$80 .... 560 00

788 00

These damages are over and above the usual injuries from ice. I have delayed making this report from a desire to be quite accurate. I ought also to include the salvage paid for three iron nun-buoys, picked up at sea, \$300.

Very respectfully, your obedient servant,

JAS. S. BIDDLE, Light-house Inspector.

Com. T. A. JENKINS, Secretary Light-house Board, Washington.

PHILADELPHIA, April 25, 1856.

Sir: In compliance with the instructions contained in your circular of the 22d ultimo, I have had an inspection made of all the lighthouse works under my charge liable to injury from ice, and have now the honor to submit the following report:

# Brandywine light-house.

The report of the keeper of this structure to the light-house inspector (hereto appended,) sent to me by the board, was found, on inspec-

tion of the work, to be minutely accurate.

It appears from this report that the whole of the lower tier of braces are gone, or so much damaged as to require renewal; also, that many of the upper tier are injured; and as they will have to be taken off to replace the lower, (an operation that can only be effected by breaking them,) we may consider that, for practicable purposes, the sockets of both tiers will have to be renewed; the braces will have to be brought to the foundry to be straightened. In fact, the ice-breaker will have to be rebuilt, with the exception of the piles, which are intact.

No delay should occur in attending to this important matter, as the light-house may now be considered as without any protection from the ice, and there is no more than time to put it in order by the

coming winter.

In conversation with the keeper, he informed me that the ice got between the upper and lower tiers of braces and fastened them; that it then piled on top, and that the principal destruction arose more from the dead weight of this mass of ice than from its direct impact. I should therefore recommend the carrying out here the principles stated above in reference to Cross ledge, viz: The elevation of the ice-breaker above the reach of the ice, and the filling up the space between the upper and lower tiers of braces; so that while free space is given to the passage of the water, ice is prevented from passing in in masses and jamming there.

In compliance with your instructions, I submit an estimate for repairing the reported damages. This estimate is of course distinct from the one submitted with a special report dated October 15, 1855, for increasing and strengthening the existing ice-breaker. If, however, the two operations are carried on at the same time, the whole amount

required will be less than the sum of both estimates.

Very respectfully, your obedient servant,

GEORGE G. MEADE, Lieutenant Topographical Engineers.

Capt. E. L. F. HARDCASTLE, Engineer Secretary L. H. Board, Treasury Department.

# ESTIMATE No. 3.

For repairing the damages from ice sustained l	by the	ice	-breaker	at
the Brandywine light-house, Delaware bay, duri	ing th	ie p	ast wint	er,
and restoring it to its former condition, 6,500 feet	of sp	ruce	e plank	for
platform, at \$18 per M	\$117	00		
3,000 feet white pine-boards for quarters, at 3 cts	90	00		
Spikes and nails  Derrick and blocks	25	00		
Derrick and blocks	100	00		
Rigging, &c	125	00		
Iron, steel, &c., for grapples, chisels, &c	50	00		
Blacksmith's forge	35	00		- 8
Blacksmith's forge	50	00	4 . 31	
-			\$592	00
Superintendent three months, at \$125	375	00		
Two machinistsdo 75 each	450			
Two machinistsdo 60 do	360			4
Blacksmith	180			
Helperdo	135			
Carpenterdo	180			
Cook and stewarddo 30 each	180			
Four laborersdo 30 do	360			
Tour labororsdo	500	00	2,220	00
Subsistance of founteen newsons at 50 etc. nor day			4,440	00
Subsistence of fourteen persons, at 50 cts. per day each.	690	00		
Stove, cooking utensils, &c	630			
Stove, cooking utensits, &c	00	00	000	00
Tondon worsel three months of \$950	7FO	00	690	UU
Tender vessel three months, at \$250	750			
Water-casks	40	00	-	00
MI. 1 12 12 12 12 12 12 12 12 12 12 12 12 1			790	00
Thirty cast-iron collars, 450 lbs. each—13,500	100			
Ibs. at $3\frac{1}{4}$ ets	438			
Foundry work on collars.	405			
Foundry work straightening 96 2½-inch braces	384			
Foundry work straightening 80 3-inch braces		00		
$160_{\frac{3}{4}}$ -inch bolts for $2\frac{1}{2}$ inch-braces	19	25		
192 7-inch bolts for 3-inch braces	15	50		
36 cast-iron clasps for 3-inch braces, 40 lbs. each—				
$1,440 \text{ lbs.}, \text{ at } 3\frac{1}{4} \text{ cts.}$	50	40		
Foundry work on clasps	45	50		
144 bolts for clasps	3	50		
Repairing boat-davits		00		
-			2,109	78
		-		_
			6,401	
Add contingencies 15 per cent			950	25
		_		-
			7,352	03
		=		

Brandywine Light-house, Delaware Bay, February 10, 1856.

The boxes are in two parts; the ones marked thus  $\odot$ , both parts are broken; marked on the west side thus  $\odot$ , the under parts broken; marked on the east side thus  $\odot$ , the upper part broken; braces marked thus  $\times$ , gone; thus,  $\sim$ , bent; two boxes, upper tier marked thus  $\longrightarrow$ , the under part broken; all the rest on the lower tier, which is a complete wreck on the north end; some of the boxes are settled down from twelve to eighteen inches; the iron step-ladder leading from the icebreak to house-steps, and the iron boat-fenders on each side of the break, carried away.

Yours, &c., S. WILLOUGHBY, Keeper. Per E. P. CHANDLER, Assistant.

Lieut. J. L. Biddle, U. S. N., Light-house Inspector, Fourth District.

> Office Fifth Light-house District, Norfolk, May 1, 1856.

SIR: In reply to your communication of the 19th ultimo, in relation to the damage done to the beacons, buoys, and light-vessels in this district during the past severe winter, over and above the ordinary damage of past years, I have to submit the following report:

#### 1. BEACONS.

None.

#### 2. BUOYS.

Of 186 spar-buoys, 27 are totally lost; cost of replacing will be about \$25 each, say	\$945	00
About 40 are so badly injured as to be useless, except the iron-work and stone-sinkers; these will require repairs	Фоло	
to the amount of about \$15 each	600	00
about \$6 each	714	00
Of the iron nun and can buoys two are totally lost, viz: one second class can off George's island, Potomac river, and one second class nun off the "Tail of the Shoe,"		
Chesapeake bay, say	600	00
at their stations, and one damaged to the amount of  Two were recovered by private individuals at a cost of \$55	30	00
and \$35, respectively, say	90	00

	Brought forward	\$2,979	00
	Add to the above for transportation and contingent expenses	521	00
	Total estimate	3,500	00
	For buoys in Chesapeake bay and tributaries.		
	3. light-vessels.		
	Actual cost of repairs made on the Smith's Point light- vessel, now at her station, after being repaired in Nor- folk, including copper, caulking, mushroon anchor, chain, workmanship, &c.  Actual cost of repairs made on the Windmill Point vessel, now at her station, after being thoroughly repaired in Norfolk, including chains, copper, caulking, workman- ship, &c.  Estimated cost of repairs required to the Craney Island vessel.  Same for York Spit.  Same for Wolf Trap.  Same for Jane's Island.  Same for Hooper's Straits.	2,434 $500$ $200$ $1,000$ $600$ $600$	47 00 00 00 00 00
	Total	6,738	92
100	Lower Cedar Point vessel was damaged, but the necessartion will be ascertained regarding her from Mr. Hough, A		
		*******	00
	Estimate for light-vessels	\$3,500 6,738	92
	Aggregate	10,238	92
	Very respectfully, your obedient servant, A. M. PENNOC	CK,	

Inspector of Lights, Fifth District.
Com. T. A. Jenkins,
Secretary Light-house Board.

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